SURGICAL CASES ILLUSTRATING SOME FACTS OF CLINICAL INTEREST.

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May I beg your indulgence in listening to the brief notes of a few selected cases? Each of these has taught me at least one lesson and I believe that what I have learned will not prove devoid of interest to you. I shall divest the histories of all unnecessary verbiage and facts, because I am not striving to give illustrative points for diagnosis, to determine the etiology, or demonstrate the course of the diseases for which the operations were performed.

Case I.—Nephrotomy followed by Nephrectomy; Pyæmic Symptoms due to the Nature of the Ligature Material.—A. S., aged twenty-three years, first entered the University hospital February 17, 1892, complaining that for eight weeks, pain radiating from the region of the right kidney had been experienced and that there was a constant but varying amount of pus in his urine. No signs of cystitis existed, but evidences of failing health were present, dating further back than his lumbar pains. I will not dwell upon my reasons for arriving at the diagnosis of pyo-nephrosis, but will say that on February 29, 1892, I did a nephrotomy, evacuating many large cavities in the kidney-substance, which contained abominably offensive pus. He greatly improved in health and flesh, the pus diminished, but continued to be present in the urine, and when discharged, May 19, 1892, a sinus was left, secreting a moderate amount of pus. On October 17, 1892, nephrectomy was done on account of recrudescence of some of the symptoms, especially the amount of pus voided with the urine. Omitting nearly all details of the operation, I will say that the hæmorrhage was very severe from the torn adhesions and that in consequence I was compelled by the necessity for haste to leave one of my provisional ligatures on the stump, as I feared in

removing it I might cut one of my permanent ligatures, which had become entangled with it. Extensive tamponnade with iodoform gauze was necessary to stop the universal ooze from the enormous cavity left. It was simply impossible to avoid rupturing many of the pus cavities; indeed, I could never have removed the kidney at all on account of its great size, except by an expedient I have twice before resorted to, viz., the application of a temporary rubber ligature enabling me to cut the organ away piece-meal, until its bulk was sufficiently reduced to admit of its delivery through the wound. Despite all my efforts then, the wound cavity was flooded with pus, which, notwithstanding free irrigation, infected my silk ligatures. Complete suppression of urine supervened for a time, apparently relieved by nitro-glycerine, and the case progressed favorably for about ten days, when the urine had to be drawn off with a catheter. Soon violent pyæmic symptoms appeared, *i. e.*, severe chills followed by high fever, profuse sweating, subnormal, then normal temperature for many hours, or a day or two, only to have similar paroxysms occur again and again. The discharge from the wound—which had promptly healed nearly throughout its entire extent—now became intensely offensive, despite a trial of every possible expedient. I detected a deep seated perineal abscess during the second week of the chills and evacuated a large amount of offensive pus, relieving the difficulty of micturition and all repetition of the rigors. Prolonged, offensive and quite exhausting suppuration still continued from the operation-wound with a hectic condition, which I was convinced resulted from the infected silk ligatures. The repeated efforts of my assistant and myself, by expedients of no special interest to the Society, enabled us to remove, one after the other, the offending materials, which were horribly offensive. At present, only a small sinus remains, discharging a little fluid; he has gained forty pounds and can work at his trade. What lesson did I learn from this? Never to employ a ligature which can absorb septic material when operating for a suppurating kidney. Silk ligatures are unquestionably the best when dealing with neoplasms of the kidney, but not when pus is present. In conclusion, let me call your attention to the repeated pyæmic

paroxysms occurring at irregular intervals resulting from one secondary dépôt, not from numerous collections. This possibility is well known to many of my hearers, but not to the less experienced and the emphasis of this point may be of use to some.

Case II.—Large Tumor of rapid growth, springing from the Internal Cutaneous Nerve.—Ida W., aged eighteen years, was admitted to the University hospital February 6, 1893, with a negative family history, so far as carcinoma or tubercle was concerned. Her general health had been and was excellent. The present trouble commenced about eight months previous to her admission, within two or three days of having her right arm bruised at the site of the tumor by a falling window sash. The growth had steadily increased, more rapidly recently, until within two weeks its increased bulk had caused such lameness of the arm that she could hardly use it. Suspecting that the tumor lay beneath some of the large nerves, or had developed in connection with one of them, I carefully examined the large mass, which occupied the middle two-fourths of the inner surface of the arm, but could detect nothing positive. A most careful dissection was therefore undertaken which showed that a bold cut down to the tumor would have divided the median nerve, which lay for four inches between the mass and the skin. The growth was readily isolated, except above and below, when it was seen that the tumor embraced one of the nerves. By careful partial splitting of the growth, the nerve—the internal cutaneous—was finally dissected out and the tumor removed. A prompt and uneventful recovery ensued. What lessons can be learned from this case? One which I have had impressed upon me time and again, namely. that although a rapidly growing tumor in a young person following an injury, is *usually* sarcomatous, yet it may be innocent, as in this instance. Professor Gibbes utterly failed, after repeated examinations, to discover anything but fibro-fatty tissue. A second lesson suggested by this case which all classes of surgeons might profitably study—the experienced as well as the inexperienced—is, that it is always safest to consider those cases which seem the least complicated, at first sight, to be exactly

the reverse, *until the contrary is proved*, and that while a free, bold cut down to a tumor *looks* well, it may often do irretrievable harm, as it would have done in my case, by dividing such an important structure as the median nerve. I could, it is true, have sutured the cut nerve, but perfect functional results do not always follow this procedure. The most brilliant surgery is not that most rapidly accomplished, but where the end is achieved with the minimum damage to uninvolved structures, never mind whether the operation be a long or a short one.

Case III.—Melanotic Sarcoma of the Skin over the Dorsum of the Root of the Fourth Toe of Thirteen Years, Duration.—F. W., aged twenty-two years, entered the University hospital, February 26, 1893, with a clear family history. When nine years of age, he noticed a small, bluish spot over the root of the fourth toe of the left foot. It slowly increased in extent until about eight months before admission, being then about the size of a silver ten cent piece, when a blacksmith cut freely into it, giving vent to nothing but blood. Since that time, the tumor has steadily grown, until when operated upon, it measured one and a quarter inches in most of its diameters. It was painless, at times a small amount of serous discharge exuding from one point. Excision showed it to be absolutely free from all the deeper parts, completely encapsulated, so that it shelled off the tendon-sheath, but the neoplasm clearly originated in, and involved the whole thickness of the skin. Was there any lesson to learn here? Certainly. The exact reverse of the one taught by the previous case, viz.: That while a malignant tumor, especially a sarcoma, usually grows quite fast in the young, such neoplasms *may* exist for many years and yet be small; and that any cutting into or in any way injuring such growths, short of extirpating them, is only inviting disaster. Perhaps *I* may not have needed either of the lessons taught in this case, but possibly some of my hearers may profit.

Case IV.—External Urethrotomy without a Guide; Retrograde Catheterization; Incision of Anterior Stricture, enabling the patient to Pass Urine by the Meatus. —Stripped of all unnecessary detail, a man of thirty-eight years of age, came to the hospital from one of the chief cities of Ohio,

having suffered many things of many surgeons, on account of a stricture of the urethra of fifteen years' duration. Dilatation had been twice imperfectly employed, external urethrotomy was then done, recontraction ensued, electrolysis was tried, and so effectively, that about one-half inch of the urethra was totally destroyed. Various operations followed, including, as I understood him, another attempted external urethrotomy, these being done for the relief of the numerous fistulæ which resulted from the exceedingly radical removal (?) of the stricture by electrolysis. The case was a most unpromising one, but he begged for at least a serviceable perineal opening, and I promised this, holding out a slight hope to him and to the class, that, by retrograde catheterization, I might effect something more. Cutting down upon the urethra behind the deepest stricture—which I divided so as to enable me readily to enter the bladder—I introduced an instrument from behind, forwards along the urethra until I had reached the posterior portion of the scar-tissue, representing the destroyed segment of urethra; this was at the peno-scrotal juncture. A second bougie was now passed into the meatus and division of the scar-tissue between the tips of the two instruments, enabled me to pass a catheter directly into the bladder. The india-rubber-like consistence of the whole perineum interdicted any idea of resection of the urethral scar, but this condition is rapidly improving, so that now a large instrument can be readily passed through the urethra. While some of the urine passes through the fistulæ, the amount is steadily diminishing, so that if the tissues go on improving, I propose to resect the whole scar representing the destroyed portion of urethra, and to reunite the canal. By maintaining the patency of the anterior portion of the canal, in time I expect to close the two remaining fistulæ, only one of which, unquestionably, gives vent to any urine. Retrograde catheterization, as the procedure I have described is termed, is of course not original, but the rarity with which it is resorted to, makes this case worthy of record.

The lesson I believe this ought to teach is, that there is no condition of strictured urethra which cannot be overcome by patience and the exercise of a little ingenuity. Again, retrograde

catheterization would often enable us, in cases of very narrow strictures situated in the pendulous urethra, where there are also deep strictures, to pass a filiform guide from behind, forwards out through the meatus; threading on this a tunnelled sound, the stricture could be so enlarged that an internal urethrotomy could be at once done; thus at one sitting, with the utmost accuracy, the patency of the whole of the narrowed portions of the canal could be restored, the deep strictures being divided from without, the more superficial from within.

Case V.—Repetition of Lateral Lithotomy demanded in five weeks in a Child of Four Years of age; Encysted Calculi (?) or Prostatic Calculi complicating a Vesical Calculus.—F. H., aged four, never strong, began when two years old to experience vesical trouble, such as frequent micturition. This passed away in a measure after a few weeks, but one year later, frequent micturition returned, pain was present during the act, interruption of the flow of urine was now noted, with the constant presence of pus in the fluid, but never blood. Last fall, after a surgeon had failed to detect any stone when the child was anæsthetized, internal treatment addressed to the cystitis afforded absolute relief from September until late in January. Neither increased frequency of, nor pain during the act of, micturition was noticed during all this time, while the urine presented a normal appearance. Towards the end of January, an ordinary cold appeared to renew all his vesical symptoms. Upon sounding him under anæsthesia at the hospital, I at once detected a stone which seemed strangely fixed near the neck of the bladder. On February 27, 1893, I operated by the lateral method, removing this stone. Feeling some calculous matter caught in the vesical neck, with considerable difficulty I brought away this hook-like mass which had evidently been attached to the calculus, as you can see. Another small fragment corresponding to this other broken spot was lost, while the mother has assured me that a similar one had been passed after my sounding. This, with a most rigid search with my finger, led me to believe that a vesical stone with a prolongation into the urethra or ureter, would account for what I had felt when sounding, and had detected during the operation. The boy did well

for a few days, when he began to have straining spells when urinating, even while most of the urine passed off by the wound. He expelled from time to time calculous fragments per urethram, with a mass from the depths of the wound, besides enough sand-like particles to have made a stone as large as that removed. The wound having been healed for about ten days, on the thirty-fifth day after the primary operation I cut him again, following my old wound-track, and found the bladder absolutely free from any concretion. Next turning my attention to the vesical neck, I felt a small calcareous spot no larger than a pin's head. After attempting to use the forceps, repeated and prolonged efforts with a Volkmann's spoon, and a small currette finally dislodged this facetted calculus from the depths of the soft tissues. Now, the introduction of my finger revealed this calculus, also facetted, *in the bladder*, doubtless loosened by my digging out—for this is the only adequate term—stone No. 1. Examining again and again, I was about to cease further manipulation when my finger nail struck a gritty spot in the neck of the bladder. A dozen efforts with the currette brought out this third, facetted stone. No further search detecting more calculi, the patient was put to bed. Prompt healing of the wound occurred, with marked amelioration of his symptoms, but there is still some cystitis present, although no more sand is passed. What is the explanation of this peculiar case? Probably prostatic calculi originally formed, giving rise to the primary vesical symptoms with incontinence, at two and a half years. Next followed cystitis with the formation of a loose phosphatic stone. Then soldering together of the vesical calculus and the projecting, hook-like prostatic stone, with cessation of most of the symptoms of cystitis took place. Finally, fracturing off of the vesical from the prostatic portion occurred, setting free the stone, to again cause recrudescence of the vesical symptoms. This seems to be the most satisfactory explanation, for small gritty particles are said by Mercier, to be found in healthy prostates, and are even detectable in children so young as ten years. These, under certain circumstances, serve as nuclei, around which are formed true prostatic calculi.

I have reported this case because of the rarity of such occurrences in so young a child, and also because of the short time

intervening between the operations. The lesson I have learned is, in the future, to most carefully examine the prostatic region during lithotomy, even in young children, especially if, when sounding, any grating is felt just as the sound enters the bladder; this should be all the more imperative if the symptom is elicited most readily by free rotation of the shaft, a manœuvre which would remove the beak of a sound from the surface of a vesical concretion, unless it were of unusual size—a point easily determined.

Case VI.—Amputation at the Hip-joint by Wyeth's Bloodless Metiiod for Tubercular Disease, chiefly of the Soft Parts; Section of Femur revealing Foci of Bone Disease as high as the Trochanter Major.—T. M., aged 31 years, was admitted to the University hospital April 13, 1891, with strumous disease of the left knee-joint, probably initiated by gonnorrhœal rheumatism. The joint was tapped, washed out, and once injected with iodoform, the man then passing from under my care. Two months later, another surgeon did a supra-condyloid amputation, using the diseased tissues covering the knee for his flaps. It is hardly requisite to say that the wound never healed soundly; the lower half of the thigh becoming honey-combed with tubercular sinuses, which did not, however, lead to diseased bone, as determined by the probe. Incipient phthisis existing, no trouble was taken to determine the presence of diseased bone, the condition of the soft parts, and the thickened state of the bone far up the thigh, indicating radical measures. Accordingly, on May 1, 1893, I amputated by Wyeth's method and the patient has not had a bad symptom since. It is believed that the whole wound, except a portion of the drainage-tube track, is now soundly healed. The lesson taught by this case is one I have striven for years to impress upon my classes, both here and in the east, viz.: that relapses after operations for tubercular bone-diseases, are often relapses only in name, being in reality the results of the gradual evolution of other foci, present but undetected at the first operation. This is possible, because long spaces of healthy medulla may exist, with no thickening or apparent disease of the exterior of the bone, while latent tubercle is present at numerous points. This lack of all external

evidences of disease was especially marked in the upper portion of the specimen from my case.

A word as to Wyeth's bloodless method of amputation. I have done this operation twice—once in private, last October—and think it advisable where skilled assistants are not obtainable, but I am doubtful whether, in the end, much less blood is lost than by some of the older methods. I have, ipsis manibus, amputated six times at the hip; in five cases removing, not a stump, but the whole lower extremity. One was done, using the abdominal tourniquet, by Liston's method, a most trivial loss of blood ensuing; one was done after Guthrie's plan, employing, however, the abdominal tourniquet; less blood was lost than I have frequently seen in an ordinary high thigh amputation. Another case was operated upon by the Larrey flaps, preceded, of course, as its author directed, by ligation of the femoral artery; here, also, very little blood was lost. Finally, a fourth case was operated upon by Furneaux Jordan's plan, the bleeding being most efficiently controlled by the Esmarch band, employed as Mr. Jordan Lloyd has recommended. My last two operations were, as I have said, done strictly according to Wyeth.

There is one serious objection, which has impressed itself upon my mind, against the Wyeth operation. This is the length of time it takes, adding, I am sure, materially to the shock. By the Larrey or Liston method, the limb can readily be removed in from thirty to forty-five seconds, during which time but little blood can be lost, especially with some means for controlling the main vessels: the bleeding points can be nearly all secured by the time the last steps of a Wyeth disarticulation are concluded, so that the wound is being, or has been nearly closed before the tremendous shock, so commonly met with after hip-joint amputations, comes on. In other words, by Wyeth's method, the shock of a high thigh amputation is inflicted, many minutes are spent in securing the vessels; then a new operation, viz.: exarticulation of the head of the bone is done, accompanied by tolerably smart bleeding for a few moments; again ensues a prolonged search for bleeding points in a deep, funnel-shaped cavity; finally, when the patient is thoroughly shocked, comes

the closing of the wound. My experience may be exceptional, but these disadvantages certainly exist. Believing that a record of clinical facts, with brief comments on the lessons taught, is of infinitely more value than a presentation of the most abstruse of surgical theories, I submit the histories of these cases, and my conclusions, for your consideration.